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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,836	05/01/2001	Ian Baxter Campbell	PG3602USW	3589

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GLAXOSMITHKLINE
CORPORATE INTELLECTUAL PROPERTY, MAI B475
FIVE MOORE DR., PO BOX 13398
RESEARCH TRIANGLE PARK, NC 27709-3398

EXAMINER	
PERLINGER, SARAH E	
ART UNIT	PAPER NUMBER
1625	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,836	CAMPBELL ET AL.	
	Examiner	Art Unit	
	Sarah E. Perlinger	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,14,17-23 and 25-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7,10 and 35* is/are allowed.

6)☒ Claim(s) *1-6,8,9,14,17-23 and 25-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10, 14, 17-23, 25-35 are pending.

2. ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6, 8-9, 17-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite where it recites a compound of formula (I) or a pharmaceutically acceptable "derivative" thereof. The word "derivative" is improper because there are no boundaries for what a derivative would encompass and therefore the scope of claims 1-6, 8-9, 17-23 cannot be ascertained.

3. Claims 25-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of claims 25-34 cannot be ascertained because the claim is self-conflicting. Claims 25-34 are self-conflicting because a perfectly healthy individual would not be given a selective COX-2 inhibitor. A COX-2 inhibitor would not be required unless an individual had already been diagnosed with a disease wherein the inhibitor was necessary. There is no such thing as a denovo prophylaxis. It is unclear what the term, "prophylaxis" means. Therefore, the scope of claims 25-34 cannot be ascertained.

4. Claims 14 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite where it recites a method for the prophylaxis or

treatment of a human subject suffering from an "inflammatory disorder". A survey of the specification revealed no definition of the term, "inflammatory disorder". It is unclear what is meant by the term, the term could refer to a disorder wherein the inflammatory response does not occur in a subject, or the term could refer to a disorder wherein the inflammatory response is too severe. The term, "inflammatory disorder" is unclear and thus the scope of claims 14 and 25 cannot be ascertained.

5. Claims 14, 25-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite where they recite a method of treatment comprising administering an "effective amount" of a compound as claimed in claim 1.

Claims 14, 25-34 are self-conflicting. Please note that claims 11, 25-34 are drawn to a pharmaceutical composition and a method for using the pharmaceutical composition without a dosage. Since pharmaceutical compositions can neither be non-effective nor toxic, it is recommended that the term, "anti-inflammatory effective amount" of a compound as claimed in claim 1 be incorporated. This amendment to the claims would have basis in the specification on page 35 wherein the IC50 values for selective COX-2 inhibition are provided. The IC50 values would provide guidance to one of ordinary skill in the art in calculating the anti-inflammatory effective amount of the compound as claimed in claim 1.

6. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite where it claims a method of treating "other viral infections,...sports injuries, injuries arising from surgical procedures and injuries arising from

dental procedures". No definition is found in the specification for these conditions, it is unclear what conditions these terms may include or exclude. The scope of claim 27 cannot be ascertained due to the vague terminology used.

7. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 31 is indefinite where it recites a method for the treatment of a human subject suffering from a "cognitive disorder". No definition of "cognitive disorder" is provided in the specification. It is unclear what disorders are included and excluded within the scope of the instant claim. The scope of claim 31 cannot be ascertained due to the vague terminology used.

8. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite where it recites a method for the treatment of "infections, metabolism, toxins and vitamin deficiency". No definition of "infections, metabolism, toxins and vitamin deficiency" is provided in the specification. It is unclear what disorders are included and excluded (or in the case of vitamin deficiency, what vitamins the subject would be deficient of) within the scope of the instant claim. The scope of claim 32 cannot be ascertained due to the vague terminology used.

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 18-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. No description is found in the specification for the "converting" of the compound of formula I to a pharmaceutically derivative thereof.

10. Claims 9, 18-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As stated in the MPEP 2164.01(a) "There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." The factors to be considered herein are those set forth as the In re Wands, 8 USPQ 2nd 1400 (1988) decision.

Nature of Invention

The instant claims are drawn to a process for converting the compound of formula (I) to a pharmaceutically acceptable derivative thereof and/or to a process of interconverting a compound of formula (I) into another compound of formula (I) of a compound as claimed in claim 1.

The State of the Art and Predictability

Unlike the mechanical art, the high degree of unpredictability is well recognized in the chemical synthetic art. A change in the structure of the compound may drastically affect the rate of the chemical reaction.

The Amount of Guidance and Working Examples

The starting materials of claims 9, 18-23 with regard to the conversion and interconversion processes were not found in the prior art (see CAS Search Report). A survey of the specification revealed no description of how to make the starting materials. Furthermore, a survey of the specification provided no guidance on how to convert the compounds of formula I to a pharmaceutically acceptable "derivative". Absent sources, the public is offered mere language, rather than enablement. Ex parte Moersch 104 USPQ 122. In re Howarthe 210 USPQ 689.

Amount of Undue Experimentation

Since insufficient teaching and guidance are provided by the specification, one of ordinary skill in the art, even with a high degree of skill, would not be able to carry out the conversion and interconversion processes according to the instant claimed processes, claims 9, 18-23.

11. Claims 18-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As stated in the MPEP 2164.01(a) "There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue."

The factors to be considered herein are those set forth as the In re Wands, 8 USPQ 2nd 1400 (1988) decision.

Nature of Invention

The instant claims are drawn to a process for the preparation of a compound as claimed in claim 1.

The State of the Art and Predictability

Unlike the mechanical art, the high degree of unpredictability is well recognized in the chemical synthetic art. A change in the structure of the compound may drastically affect the rate of the chemical reaction.

The Amount of Guidance and Working Examples

The starting materials (formulas IV, V, VI, X) of claims 18-23 were not found in the prior art (see CAS Search Report). A survey of the specification revealed no description of how to make the starting materials. Furthermore, a survey of the specification provided no guidance on how to convert the compounds of formula I to a pharmaceutically acceptable "derivative". Absent sources, the public is offered mere language, rather than enablement. Ex parte Moersch 104 USPQ 122. In re Howarthe 210 USPQ 689.

Amount of Undue Experimentation

Since insufficient teaching and guidance are provided by the specification, one of ordinary skill in the art, even with a high degree of skill, would not be able to make the compounds according to the instant claimed processes, claims 18-23.

12. Claims 30-34 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for treating inflammation associated with the diseases mentioned (see Cannon et al., Am. J. Med., 2001, 110(3A), pages 6S-12S) does not reasonably provide

enablement for treating Alzheimer's disease, Pick's disease, Huntington's Chorea, Parkinson's disease, Creutzfeldt-Jakob disease, trauma, infections, metabolism, toxins, anoxia, and vitamin deficiency. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

As stated in the MPEP 2164.01(a) "There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." The factors to be considered herein are those set forth as the In re Wands, 8 USPQ 2nd 1400 (1988) decision.

Nature of Invention

Claims 30-34 are drawn to a method for treating such a diversity of disorders for example as Chron's disease, Hodgkin's disease, Parkinson's disease and Creutzfeldt-Jakob disease in a human subject comprising administering an effective amount of a compound of formula I as claimed 1. No nexus exists among the diversity of such disorders which have multiple and unrelated etiology.

The State of the art and Predictability

Treating a neurological disorder such as neurodegenerative disease, including those such as Creutzfeldt-Jakob disease, Parkinson's disease, etc. has been well recognized in the art to be literally untreatable (see CA 126:324757). In addition, in so far as neuropathies are concerned, it is well recognized that many neuropathies have different etiology and treatment of such conditions is highly specific. In absence of specific description of enablement, one skilled in the art is unable to operate such process (see CA 127:174580).

Furthermore, for the CNS related neurological disorders, it is a well-known fact that any compound having CNS efficacy must cross the blood brain barrier. No description for the instant claimed compounds having the ability to cross the blood-brain barrier has been provided.

The amount of guidance and working examples

No data or examples were provided for the compound as claimed in claim 1 illustrating which compound was effective with respect to specific neurological disorders in order to guide one having ordinary skill in the art to pick and choose for the individual method of treatment. In view of the absolute requirement for a compound to cross the blood-brain barrier in order for it to have efficacy in the CNS, no description or enablement can be found that the claimed compound would have any practical CNS method of use.

The specification provides none of the composition or dosage preparation or guidelines for a CNS route of administration, i.e. no guidance was provided in the specification for intracranial administration (see Specification, pages 31-34).

While selectively inhibiting COX-2 is enabling for the treatment of inflammation, such disclosure failed to provide support in treatment for example of any inflammatory disorder, Chron's disease, Hodgkin's disease, Alzheimer's disease, Pick's disease, Creutzfeldt-Jakob disease, etc. in a human subject. There isn't any one etiological mechanism that can treat such a diversity of diseases. There is no nexus between inhibiting COX-2 to the treatment of neurodegenerative diseases or all cognitive disorders.

13. ***Allowable Subject Matter***

Claims 7, 10, 35 are allowed. The closest art found was WO 96/21667, WO 96/31509, WO 99/12930 and Talley, J.J., Expert Opinion on Therapeutic Patents, 7(1), 1997, 55-62.

14. ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Sarah E. Perlinger, whose telephone number is (571) 272-5574. The examiner can normally be reached on Monday through Friday, 8:30 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Thomas McKenzie, can be reached at (571) 272-0670. The fax number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SP

05/12/2006

Celia Chang
Primary Examiner
Art Unit 1625